REMARKS

This after allowance amendment under 1.312 follows up on an informal telephone call made by Applicant's attorney to the Examiner to alert the Examiner to error in mathematical representations in the specification and the manner in which Applicants would address the problem. On page 10, the mathematical representation of the field values V^A and V^B at each point in the three dimensional grid were not correct in the original specification. Also, the mathematical representation provided to show the "distance" as the root sum square of differences between the field values V^A and V^B at each point in the grid was also incorrect. In both instances, the representations did not conform to the written text. The text clearly states that the "distance" is represent by the difference between the molecular fields. The text correctly refers to the "root sum square of distances" even thought the mathematical representation does not reflect any "difference" – that is; there is no squaring of the subtracted difference between field values in the mathematical representation. However, as is recognized, the formulation of a distance as a root sum of squares follows a basic mathmatical approach. The substitute mathematical representations correspond to the text.

The substitute mathematical representations do not introduce new matter into the specification. As noted above, the mathematical representations correspond to the text. Just as significantly, a software source code appendix was filed with the application that constitutes a complete disclosure of the best mode of the invention. The source code implements the mathematical functions set out in the substitute mathematical expressions. The Examiner's

3

attention is drawn to the following parts of the ct_top code. Line numbers have been added in

Microsoft Word to the ct_top.c code listing so that the Examiner may find, if he wishes, the

corresponding parts of the code on the CD-ROM that was filed as part of the application

specification.

Lines 6849 et seq. "static int" gets the details:

```
static int get_details( top_result *res, Split *query, Split *str,
int bestq, int bestStr, int bestIdx, int threeMatched, int subsetHit, int keepCts )
{
        split2 *qs2, *s2;
        split3 *qs3, *s3;
        int ids[3];
        Frag *f;
        Frag *sf;
```


Lines 7799 et seq. "topFieldDiff" calculates the field differences and takes the square:

```
static double topFieldDiff(double *qry, double *str, int npoints )
{
        double dval;
        double sval;
        int i;

        if ( !qry || !str || !npoints )
                return 9999.0*9999.0;

        for ( i = 0, sval = 0.0; i < npoints; i++ )
        {
                dval = *qry++ - *str++;
                dval *= dval;

                sval += dval;
        }
        t_fcompare++;
        return sval;
```

The values are carried as squares until lines 6930 et seq. where the square root is taken:

```
res->hexDiffs[1] = sqrt( f->hexDiff [ ids[1] ] );
if ( q_partialMatch )
        f->featureDiff = f->featureSubsetDiff;
if ( f->featureDiff )
        res->featureDiffs[1] = sqrt( f->featureDiff [ ids[1] ] );
else
        res->featureDiffs[1] = 0.0;
```

With the substitute material, the mathematical representations in the text now

correspond to both the written text and the source code listing. Accordingly, no new matter

has been introduced. Applicants respectfully request the Examiner to enter the amendment.

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